



July 11, 2018

**Via E-Mail**

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Re: Comments of the National Hydropower Association and the Utility Water Act Group on the EPA Region 10 Proposed Issuance of NPDES General Permit for Hydroelectric Facilities Within the State of Idaho (IDG360000)

Dear Ms. Keenan:

The National Hydropower Association and the Utility Water Act Group respectfully submit the following comments on the EPA Region 10 Proposed Issuance of NPDES General Permit for Hydroelectric Facilities Within the State of Idaho (IDG360000), 83 Fed. Reg. 18,555 (Apr. 27, 2018). We appreciate the opportunity to provide comment on the proposal, which we believe raises significant issues for hydropower project operators in the region and beyond.

If you have any questions about these comments or wish to discuss the issues further, please contact Kerry McGrath at (202) 955-1510 or [kmcgrath@HuntonAK.com](mailto:kmcgrath@HuntonAK.com)

We appreciate your attention to this important matter.

Sincerely,

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**The National Hydropower Association and the Utility Water Act Group  
Comments on EPA's Proposed Issuance of NPDES General Permit for  
Hydroelectric Facilities Within the State of Idaho**

**83 Fed. Reg. 18,555 (Apr. 27, 2018)**

**July 11, 2018**

## Executive Summary

With the U.S. Environmental Protection Agency (“EPA” or “Agency”) Region 10’s proposed National Pollutant Discharge Elimination System (“NPDES”) general permit for hydroelectric facilities discharging to waters within the State of Idaho (“Proposed Permit”) (IDG360000), 83 Fed. Reg. 18,555 (Apr. 27, 2018), EPA, for the first time in a rule or permitting action of general applicability, takes the position that hydroelectric facilities are subject to the requirements of Clean Water Act (“CWA”) § 316(b), 33 U.S.C. § 1326(b), and EPA’s 2014 Final Rule to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48,300 (Aug. 15, 2014) (“2014 Rule” or “Existing Facilities Rule”).

Unlike the other facilities to which EPA has applied § 316(b), EPA has not established technology-based limitations and standards for hydroelectric facilities, nor would it be reasonable to do so given the *de minimis* nature of their discharges. EPA never collected any information on the design, location, construction, and capacity of pipes or other features used to divert water for use in cooling equipment in hydroelectric facilities, or on the environmental impacts of those features. As these comments will show, that omission is crucial because hydroelectric facilities differ substantially from the largely land-based steam electric plants and industrial facilities for which EPA developed the 2014 Rule and every other § 316(b) rule the Agency has adopted. Of equal significance, EPA has never considered any of the legal, technical, or economic issues involved in applying § 316(b) to hydroelectric facilities.

The Proposed Permit nevertheless relies on the 2014 Rule’s standards for steam electric power and manufacturing plants to establish the Region’s best professional judgment (“BPJ”) about what “cooling water intake structure” (“CWIS”) is the best technology available (“BTA”) “to minimize [the] adverse environmental effects of [CWIS]” at hydroelectric facilities, and

requires that the permit conditions reflecting those technologies be met within 180 days of the effective date of the permit.<sup>1</sup>

There are several key problems with Region 10's proposal. First, interpreting CWA § 316(b) to apply to hydroelectric generation facilities would be a significant expansion of EPA's regulatory jurisdiction and would duplicate other federal and state requirements specifically designed to address these environmental impacts. Second, EPA has never provided notice or an opportunity for comment on the applicability of § 316(b) to hydroelectric facilities. In fact, the Agency explicitly stated that withdrawals from hydroelectric facilities were not meant to be addressed in its Existing Facilities Rule. 76 Fed. Reg. 22,174, 22,190 (Apr. 20, 2011). It would be arbitrary and capricious, and contrary to the Administrative Procedure Act ("APA") requirements for fair notice and opportunity for comment, for EPA to now adopt such a novel, post-hoc interpretation. Third, even if EPA, after full and procedurally appropriate consideration of the issue, concluded that CWA § 316(b) applies to hydroelectric facilities (which NHA and UWAG believe it should not), the requirements of the 2014 Rule are not appropriate for such facilities, which are fundamentally different from the steam electric power and manufacturing plants EPA considered in that rulemaking, both in terms of the feasibility and cost of technology and the assessment of environmental impacts. Indeed, the 2014 Rule's requirements would be unnecessary in most cases because the rates of impingement and entrainment would be so low that additional controls would not be warranted.

In the Proposed Permit, Region 10 proposes to establish new BTA requirements based on its "best professional judgment" without first characterizing and evaluating the attributes of the facilities in question and determining whether they have already minimized adverse

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<sup>1</sup> See EPA, NPDES Fact Sheet, Proposed Wastewater Discharges from Hydroelectric Generating Facilities General Permit, IDG360000, at 23 (Apr. 27, 2018) ("Proposed Permit Fact Sheet").

environmental effects and without identifying the technologies, measures, procedures, and methods the Agency anticipates facilities would use to meet the requirements imposed by the permit. In fact, it would be very difficult and, in some cases, infeasible, for many hydroelectric facilities to comply with the requirements outlined in the Proposed Permit and, even if some facilities could comply, the costs of doing so would likely far exceed any plausible environmental benefits. For all of these reasons, discussed in more detail in these joint comments, Region 10 should remove any § 316(b)-related provisions from the Proposed Permit. Finally, in addition to the § 316(b)-related measures, a number of discharge-related provisions in the Proposed Permit require clarification and/or revision.

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**The National Hydropower Association and the Utility Water Act Group  
Comments on EPA’s Proposed Issuance of NPDES General Permit for  
Hydroelectric Facilities Within the State of Idaho**

**I. Introduction**

EPA Region 10 has proposed to issue a NPDES general permit for hydroelectric facilities discharging to waters within the State of Idaho. 83 Fed. Reg. 18,555 (Apr. 27, 2018). With the Proposed Permit, EPA, for the first time in a rule or permitting action of general applicability, takes the position that hydroelectric facilities are subject to the requirements of CWA § 316(b), 33 U.S.C. § 1326(b), and EPA’s 2014 Rule.

The Proposed Permit would apply only to hydroelectric facilities that require an NPDES permit to discharge pollutants associated with the operation of hydroelectric facilities to waters of the United States in Idaho, and that use water to cool some of that equipment, where the amount of cooling water falls below the 2014 Rule’s qualifying thresholds.<sup>2</sup> Region 10 asserts that those hydroelectric facilities must meet CWA § 316(b) requirements established by the Director on a case-by-case, BPJ basis under 40 C.F.R. § 125.90(b). Proposed Permit Fact Sheet at 22-23, 28. The Proposed Permit purports to reflect Region 10’s BPJ about what CWIS technology is the best available “to minimize [the] adverse environmental effects of [CWIS]” at hydroelectric facilities and requires that the permit conditions reflecting those technologies be met within 180 days of the effective date of the permit. Proposed Permit Fact Sheet at 23.

The Region’s proposal to apply CWA § 316(b), even on a BPJ case-by-case basis, to hydroelectric facilities is neither compelled by nor consistent with the CWA. And, as demonstrated in these comments, even if CWA § 316(b) were applicable, the Region’s proposed

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<sup>2</sup> See Proposed Permit Fact Sheet at 19. The 2014 Rule’s stringent requirements apply only to facilities that are point sources requiring an NPDES permit, withdraw from a water of the United States, use CWIS with a design intake flow of greater than 2 million gallons per day (“MGD”), and use 25 percent or more of the water withdrawn exclusively for cooling purposes. 40 C.F.R. § 125.91(a).



BPJ requirements are arbitrary and capricious for several reasons. First, the Fact Sheet demonstrates that the Region borrowed from and relies on a rule that EPA expressly stated did not apply to hydroelectric facilities and that the Agency adopted without any consideration of the technical feasibility or cost of application of such requirements to hydroelectric facilities. Proposed Permit Fact Sheet at 28.

Second, the Region has provided no independent analysis or support for any of the proposed requirements. Indeed, for many of the conditions imposed, neither the Fact Sheet nor the Proposed Permit provide any meaningful indication of technology or methods the permit might be expected to employ, nor does the proposal provide any discussion of the technical feasibility, costs, benefits, or other relevant factors associated with those conditions. This deficiency is not limited to the requirements based on EPA's 2014 Rule. The Region has not provided, for example, any analysis of or support for the Proposed Permit's requirement that, to comply with the proposed BTA requirements established for CWIS, facilities must maintain screening technologies established in National Marine Fisheries Service ("NMFS") Northwest Region's Anadromous Salmonid Passage Facility Design guidelines, which were developed by NMFS for hydroelectric turbines, not cooling water diversion pipes.

The National Hydropower Association ("NHA") is the national non-profit trade association dedicated to promoting the growth of clean, affordable, U.S. hydropower. It seeks to secure hydropower's place as a renewable and reliable energy source that serves national environmental, energy, and economic policy objectives. NHA's membership includes more than 240 companies, from Fortune 500 corporations to family-owned small businesses. NHA members include public and investor-owned utilities, independent power producers, developers, equipment manufacturers and other service providers. In the United States, hydropower plants

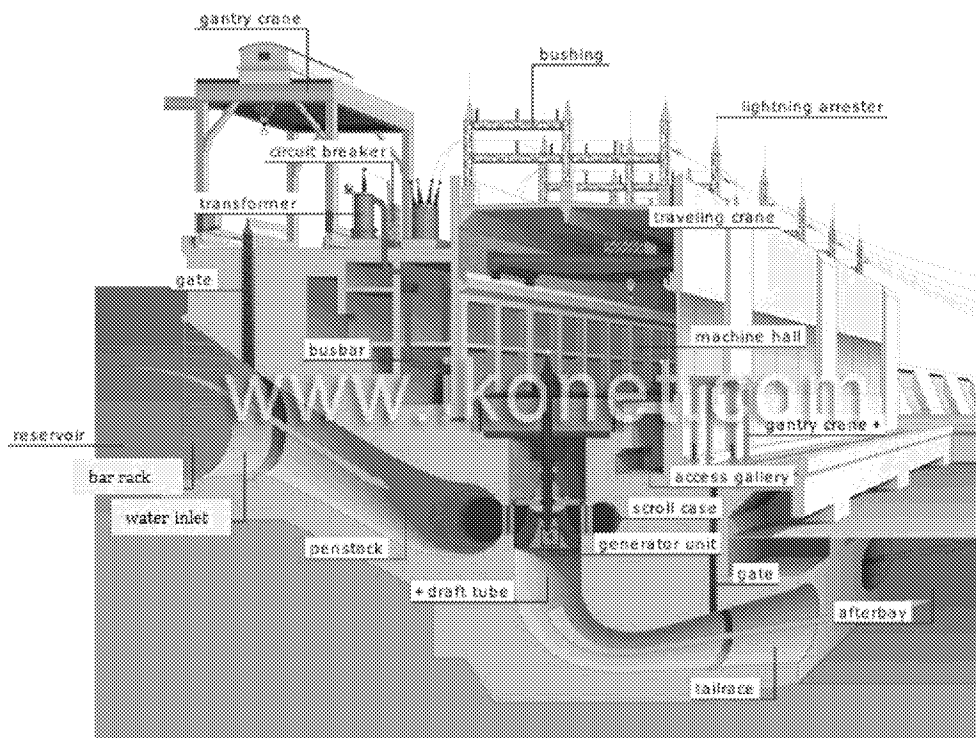
provide about 6 to 7 percent of the nation's total electric generation and pumped storage hydropower plants provide the vast majority of energy storage, approximately 97 percent. NHA's membership includes Idaho companies that will be directly affected by the Proposed Permit.

The Utility Water Act Group ("UWAG") is a voluntary, non-profit, unincorporated group of 146 individual energy companies and three national trade associations of energy companies: the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association. UWAG members operate hydroelectric facilities, power plants, and other facilities that generate, transmit, and distribute electricity to residential, commercial, industrial, and institutional customers. One of UWAG's purposes is to participate on behalf of its members in EPA regulatory actions under the CWA and in litigation arising from those regulatory actions. UWAG's membership includes owners and operators of hydroelectric facilities that would be affected by the adoption and issuance of the Proposed Permit.

Hydroelectric facilities vary significantly in terms of design and configuration, especially when it comes to the pipes and structures that divert water for purposes of cooling. Generally, water diverted for cooling is primarily sourced from three locations within the hydroelectric facility: (1) the penstock – a closed conduit or pipe that conveys water from the reservoir to the turbine, (2) the turbine scroll case – a spiral-shaped steel structure distributing water flow through the wicket gates located just prior to the turbine, or (3) a water inlet port located on the face of the dam. There likely are exceptions to these locations, because each facility has a unique, location-specific design to take maximum advantage of the hydraulics of that location. An individual facility may use one design exclusively, or may use a combination of designs. After use for cooling, diverted water is transferred downstream primarily via these methods: (1)

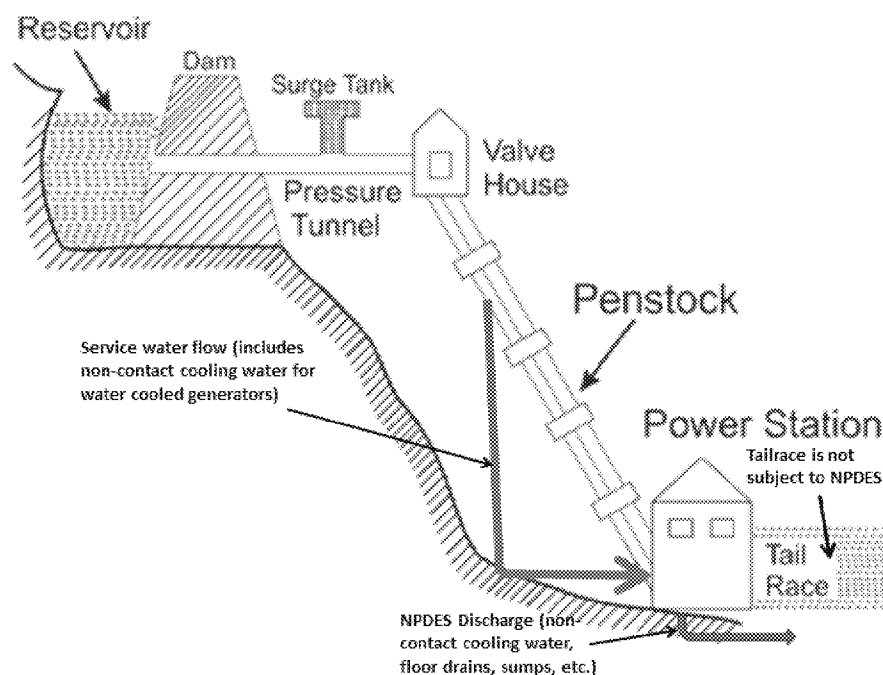
directed back to the penstock and re-used to generate electricity, (2) directed back to the scroll case (low head dams mainly) and re-used to generate electricity, (3) directed to the tailrace via the draft tube, or (4) direct transfer to the tailrace. The features of a typical hydroelectric facility are depicted in Figure 1, and an example of a facility diverting cooling water from the penstock is depicted in Figure 2.

**Figure 1<sup>3</sup>**



<sup>3</sup> The Visual Dictionary, Cross Section of a Hydroelectric Plant, [www.ikonet.com](http://www.ikonet.com).

Figure 2



Accordingly, hydroelectric generating facilities do not have CWISs in the conventional industrial context upon which the current § 316(b) regulations were developed. Hydroelectric facilities bring a wide variety of technical challenges associated with characterizing impingement and entrainment, and applying technologies that EPA considered in its 2014 rulemaking as available for on-shore facilities. This is evident in the 2014 Rule’s definition of a CWIS. EPA’s regulations define CWIS as “the total physical structure and any associated construction waterways used to withdraw cooling water from waters of the United States. The [CWIS] extends from the point at which water is first withdrawn from waters of the United States up to, and including the intake pumps.” 40 C.F.R. § 125.92(f). The 2014 Rule envisions the use of pumps to actively *withdraw* cooling water from surface waters that are waters of the U.S., but this broad definition is inappropriate for hydroelectric facilities, which are diversion structures by design – impounding water and transporting/passing water along a contiguous waterway to

turn turbines used to generate electricity.<sup>4</sup> Relative to the total water transported through the facility, a very small amount of water is diverted for cooling. In general, cooling water accounts for less than 1% of the total water transported through the facility and in some cases less than 0.1%. For example, at the Keowee Hydro Station the cooling water is generally less than 0.01% of the total discharge flow.<sup>5</sup> As explained in further detail herein, given the wide range of configurations for hydroelectric facilities and different processes for diverting water for cooling, the best available technologies and sampling requirements imposed by EPA for steam electric power plants and manufacturing plants are not necessarily appropriate or practical for hydroelectric facilities. The Region 10 Proposed Permit fails to consider or account for these challenges.

## **II. EPA's Interpretation and Implementation of § 316(b) To Date**

### **A. EPA's Prior Regulations Implementing § 316(b) Have Not Addressed Hydroelectric Facilities.**

Section 316(b) provides:

Any standard established pursuant to section 1311 of this title or section 1316 of this title and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.

33 U.S.C. § 1326(b).

EPA has implemented this provision by issuing regulations that establish BTA standards for intake structures that become binding for a particular facility only after the standards are incorporated into an NPDES permit for discharges from a regulated facility. At no point during

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<sup>4</sup> Hydroelectric facilities do not have conventional CWIS and their configurations vary. These comments refer to the mechanisms that divert cooling water as intakes, pipes, or diversion structures.

<sup>5</sup> South Carolina NPDES Permit No. SC0000515, Fact Sheet and Permit Rationale at 18 (Mar. 16, 2011).

EPA's long history of implementing § 316(b) have EPA's regulatory actions addressed or evaluated the applicability of CWA § 316(b) to hydroelectric facilities.

In 1976, EPA issued its first § 316(b) rule, 41 Fed. Reg. 17,387 (Apr. 26, 1976), but the Fourth Circuit remanded it to EPA on procedural grounds. *Appalachian Power Co. v. Train*, 566 F.2d 451 (4th Cir. 1977). EPA's remaining rule and guidance instructed NPDES permit writers to make case-by-case determinations regarding BTA for CWIS at point sources subject to EPA standards established pursuant to §§ 301 or 306. *See* 40 C.F.R. § 401.14 ("The location, design, construction and capacity of cooling water intake structures of any point source for which a standard is established pursuant to section 301 or 306 of the Act shall reflect the best technology available for minimizing adverse environmental impact, in accordance with the provisions of part 402 of this chapter."); 33 U.S.C. § 1342(a)(1)(B).<sup>6</sup> By its terms, § 401.14 applies only to those point sources for which technology-based standards are established under §§ 301 and 306. By contrast, even where hydroelectric facilities require NPDES permits for discharges, the limits imposed are largely water quality-based.<sup>7</sup> Although § 401.14 has been in effect since 1976, generally, neither federal nor state NPDES permitting authorities read § 401.14 as applicable to hydroelectric facilities that are issued NPDES permits for minor equipment-related discharges.<sup>8</sup>

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<sup>6</sup> *See also* EPA, *Draft Guidance for Evaluating the Adverse Impact of Cooling Water Intake Structures on the Aquatic Environment: Section 316(b) Public Law 92-500*, at 4 (1977) ("The environment-intake interactions in question are highly site-specific and the decision as to best technology available for intake design, location, construction, and capacity must be made on a case-by-case basis.").

<sup>7</sup> *See, e.g.*, Arkansas NPDES Permit No. AR0048755, Statement of Basis at 6-7 (Apr. 13, 2017); Arkansas NPDES Permit No. AR0048763, Statement of Basis at 7 (Sept. 4, 2013); West Virginia NPDES Permit No. WV0078859, App. A § I.12 (Aug. 9, 2016); South Carolina Department of Health and Environmental Control, NPDES General Permit for Hydroelectric Generating Facilities, Permit No. SCG360000 (May 15, 2015).

<sup>8</sup> *See, e.g.*, NPDES General Permits for Hydroelectric Facilities in the States of Massachusetts and New Hampshire, Permit Nos. MAG360000, NHG360000 (Nov. 10, 2009); ADEM General Permit Rationale, Hydroelectric Facilities ALG360000 (Aug. 18, 2015); South Carolina Department of Health and Environmental Control, NPDES General Permit for Hydroelectric Generating Facilities, Permit No. SCG360000 (May 15, 2015); North Carolina Department of Environment and Natural Resources, NPDES General Permit No. NCG50000 (Oct. 1, 2015). We are aware of one exception, discussed in note 38, *infra*.

Since 1976, EPA has issued a series of regulations implementing § 316(b) for new facilities, as well as existing steam electric plants and manufacturing facilities. The Phase I rule established national technology-based performance requirements for new facilities that withdraw greater than 2 MGD of surface water and use at least 25 percent of the water they withdraw for cooling purposes. 66 Fed. Reg. at 65,255 (Dec. 18, 2001). The Phase II rule set requirements for existing steam electric plants with flows greater than 50 MGD, 69 Fed. Reg. 41,576 (July 9, 2004), but certain aspects of the rule were invalidated by the U.S. Court of Appeals for the Second Circuit and later withdrawn.<sup>9</sup> The rules for lower flow steam electric plants and all manufacturing facilities (known as the Phase III rules) were also withdrawn. 71 Fed. Reg. 35,006 (June 16, 2006). In place of the Phase II and III rules, in 2014, EPA issued a single rule for existing facilities – the 2014 Existing Facilities Rule.<sup>10</sup>

During the development of the Phase I, II, and III rules, EPA never suggested that any of those rules would apply to hydroelectric facilities, whether or not the facilities use cooling water or need an NPDES permit. None of EPA’s Information Collection Requests (“ICRs”) were directed at hydroelectric facilities, nor did EPA use any other method to collect or consider information on cooling water diversion or use by hydroelectric facilities. Variations in the locations, design, and configurations of cooling water “intakes” unique to hydroelectric facilities were never contemplated in EPA’s previous facility surveys or technology evaluations for promulgating § 316(b) regulations for new or existing power generating facilities. EPA did not consider whether hydroelectric facilities could feasibly monitor or otherwise assess entrainment or impingement mortality associated with cooling water diversion or whether those facilities

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<sup>9</sup> *Riverkeeper, Inc. v. EPA*, 475 F.3d 83 (2d Cir. 2007); 72 Fed. Reg. 37,107 (July 9, 2007).

<sup>10</sup> Final Regulations To Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48,300 (Aug. 15, 2014).

could distinguish such mortality from mortality occurring by virtue of the passage of water through the turbines. Nor did EPA consider the availability, performance, or cost of technologies for reducing entrainment or impingement mortality that might be caused by hydroelectric facilities' cooling water "intakes," which often consist of one or more relatively small pipes diverting water from within or coming off of the penstock or draft tube of a hydroelectric facility or in some other location depending upon the broader facility design and operation.

The development of EPA's 2014 § 316(b) Rule was no different; EPA's ICR solicited no information from any hydroelectric facility.<sup>11</sup> As discussed below, EPA stated in the preamble to the proposed rule that water withdrawals for generation of electricity by hydroelectric facilities were not subject to the rule. *See* 76 Fed. Reg. 22,174, 22,190 (Apr. 20, 2011). As a result of this express and unambiguous statement, EPA received no comments regarding the potential applicability of CWA § 316(b) to hydroelectric facilities or addressing the potential impacts of applying the proposed technology requirements to hydroelectric facilities. Indeed, in the final 2014 Existing Facilities Rule, EPA estimated that a total of 1,065 facilities (544 electric generators and 521 manufacturers) would be subject to the Rule. 79 Fed. Reg. at 48,305. None of those facilities were hydroelectric power generators.<sup>12</sup> Thus, EPA never collected the necessary information to evaluate impacts of the Rule on hydroelectric facilities, even though some hydropower generators divert more than 2 MGD and use 25 percent or more of the diverted water for cooling purposes.

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<sup>11</sup> *See* Information Collection Request (ICR) for CWIS at Existing Facilities (Final Rule), OMB Control No. 2040-0257, EPA ICR No. 2060.07 (Aug. 2014).

<sup>12</sup> 2014 TDD at 4-24 ("From the universe of facilities with a steam electric prime mover and based on data collected from EPA's industry technical questionnaires and the compliance requirements for the final rule, EPA has identified 544 facilities to which the proposed rule is expected to apply.").



The 2014 Rule establishes requirements for existing facilities that: (1) have NPDES permits, (2) use one or more CWISs with a cumulative design intake flow (“DIF”) of greater than 2 MGD to withdraw water from waters of the U.S., and (3) use 25 percent or more of the water withdrawn (on an actual intake flow basis) exclusively for cooling water purposes. 40 C.F.R. § 125.91(a). Facilities with CWISs that are subject to CWA § 316(b) that do not meet these criteria must meet § 316(b) requirements established by the permit writer on a case-by-case, BPJ basis. 40 C.F.R. § 125.90(b). EPA’s final 2014 Existing Facilities Rule made no mention of hydroelectric facilities in the preamble or regulatory text.

**B. The Proposed NPDES General Permit Inappropriately Seeks to Apply § 316(b) Requirements to Hydroelectric Facilities.**

The Proposed Permit<sup>13</sup> would apply only to facilities below the 2 MGD and 25 percent cooling water threshold. Proposed Permit Fact Sheet at 28.<sup>14</sup> The Fact Sheet indicates that facilities above the 2 MGD and 25 percent cooling water threshold would have to obtain an individual NPDES permit, and (assuming the individual permit is a federal permit issued by Region 10) an individual § 401 water quality certification, and comply with the comprehensive requirements of the 316(b) Rule. *Id.* For facilities below the 2 MGD and 25 percent cooling

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<sup>13</sup> The timing of the Proposed Permit coincides with the announcement that EPA has approved the application by the State of Idaho to administer and enforce the Idaho Pollutant Discharge Elimination System (“IPDES”) program regulating discharges of pollutants into waters of the United States under its jurisdiction. 83 Fed. Reg. 27,769 (June 14, 2018). Under a Memorandum of Agreement (“MOA”) between the Idaho Department of Environmental Quality and EPA Region 10, EPA will transfer the administration of specific program components to the State over a four-year period. Idaho will assume NPDES permitting and enforcement authority for general permits, such as the proposed general permit for wastewater discharges from hydroelectric generating facilities, by July 1, 2020.

<sup>14</sup> As discussed on page 31, the text of the Proposed Permit is inconsistent with the Fact Sheet and the 401 Water Quality Certification in its discussion of the thresholds facilities must meet to qualify for the permit (i.e., whether facilities above the 2 MGD and 25 percent cooling water threshold are ineligible or whether facilities that meet either the 2 MGD or 25 percent cooling water thresholds are ineligible). For purposes of these comments, we are assuming that Region 10 intended that facilities that are ineligible for coverage under the Proposed Permit are those facilities that use greater than 2 MGD and use 25 percent or more of the water for cooling purposes.

water threshold, the Proposed Permit would set BTA requirements that must be implemented within 180 days of the effective date of the permit, including, for example:

- manage tailrace operations to prevent fish access to the draft tube areas;
- cease or reduce the intake of cooling water whenever withdrawal of source water is not necessary, *i.e.*, during equipment testing or maintenance activities;
- return all observed live impinged fish to the source water to the extent practicable;
- conduct weekly monitoring to identify what species are impinged;
- maintain a physical screening or exclusion technology consistent with NMFS Northwest Region's Anadromous Salmonid Passage Facility Design guidelines; and
- properly operate and maintain CWIS, including any existing technologies to minimize impingement and entrainment.<sup>15</sup>

In addition, permittees also would have to prepare a report to be submitted to Region 10 at least 180 days prior to permit expiration that would include extensive information regarding the CWIS and source waterbody, including, for example:

- if the combined design capacity of all CWISs is greater than 1 MGD, the measures to be taken by the facility to maintain a daily maximum surface water withdrawal of 1 MGD;
- maximum monthly average intake of the CWIS during the previous five years;
- whether the facility withdraws cooling water at a rate commensurate with a closed-cycle cooling system;
- maximum through-screen design intake velocity;
- detailed description of screening and exclusion technology employed to prevent impingement and entrainment at the CWIS; and
- report of the prior five-year results from the required impingement and entrainment monitoring program.<sup>16</sup>

The Fact Sheet states, "EPA will use this information to assess the potential for impingement and entrainment at the CWIS, evaluate the appropriateness of any proposed

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<sup>15</sup> Proposed Permit, § IV.C.2.

<sup>16</sup> Proposed Permit, § IV.C.3.

technologies or mitigation measures, and determine any additional requirements to place on the facility's CWIS in the next permit cycle." Proposed Permit Fact Sheet at 28-29. The Idaho Department of Environmental Quality ("IDEQ") has certified that, if the permittee complies with the terms and conditions of the Proposed Permit and the conditions set forth in the water quality certification, "there is reasonable assurance" the covered hydroelectric facilities' discharges "will comply with the applicable requirements" of the CWA and Idaho Water Quality Standards.<sup>17</sup>

The Region provides no analysis or support for applying § 316(b) requirements to hydroelectric facilities. The Fact Sheet demonstrates that the Region relied on and drew heavily from EPA's 2014 Rule in establishing CWIS-related requirements in the Proposed Permit. *See* Proposed Permit Fact Sheet at 28. But nowhere in the Proposed Permit or Fact Sheet does the Region provide any support or independent analysis for the measures it proposes to require for hydroelectric facilities.

### **III. CWA § 316(b) Does Not Apply to Hydroelectric Facilities.**

#### **A. Hydroelectric Generation Facilities Are Not Subject to CWA § 316(b).**

By its terms, § 316(b) applies only where EPA establishes standards under §§ 301 and 306 for point sources. Unlike the other facilities to which EPA has applied § 316(b), EPA has not established such technology-based limitations and standards for hydroelectric facilities, nor would it be reasonable to do so given the *de minimis* nature of their discharges. As the United States Supreme Court has recognized, absent clear direction from Congress, courts will view (and agencies should view) with skepticism statutory interpretations that extraordinarily expand regulatory jurisdiction. *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2444 (2014). Interpreting CWA § 316(b) to apply to hydroelectric generation facilities would be a significant

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<sup>17</sup> IDEQ Draft § 401 Water Quality Certification for NPDES Permit Number IDG360000 (Mar. 29, 2018).

expansion of EPA's regulatory jurisdiction and would duplicate other federal and state requirements specifically designed to address these environmental impacts.

The limited legislative history for § 316(b) indicates that Congress did not intend for § 316(b) to apply to hydroelectric facilities. From November 1971 to October 1972, Congress considered various bills that eventually would become the CWA. On September 28, 1972, the conference committee substantially amended § 316, modifying that provision to insert for the first time a provision addressing cooling water intakes structures, and submitted its report for approval by both the House and Senate.<sup>18</sup> During the House of Representatives consideration of the conference report, Rep. Donald Clausen (R-CA1) made the following statement in support:

Section 316 was originally included in the House-passed water pollution control bill because of the belief that the arguments which justified a basic technological approach to water quality control did not apply in the same manner to the discharges of heat.... [S]team-electric generating plants are the major source of the discharges of heat.... Section 316(b) requires the location, design, construction, and capacity of cooling water intake structures *of steam-electric generating plants* to reflect the best technology available for minimizing any adverse environmental impact.<sup>19</sup>

Rep. Clausen's statement indicates that Congress intended § 316(b) to apply to steam electric generating plants, not hydroelectric generating facilities that harness the power of falling or fast-moving water to drive turbines to produce electricity.<sup>20</sup> In contrast, steam electric power plants heat water into steam that drives the electric-generating turbines, typically requiring considerably more cooling water to safely operate the facility. It is these facilities that were Congress' focus when it promulgated CWA § 316(b).

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<sup>18</sup> See H.R. Rep. No. 92-1465, at 68, 137 (Sept. 28, 1972).

<sup>19</sup> House Consideration of the Report of the Conference Committee (Oct. 4, 1972), *reprinted in* 1 A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, at 262-64 (1973) (statement of Rep. Clausen) (emphasis added).

<sup>20</sup> We recognize that some U.S. Courts of Appeals have held that § 316(b) applies to other industrial facilities that use cooling water beyond steam electric plants (*e.g.*, iron and steel). See, *e.g.*, *Appalachian Power Co. v. Train*, 566 F.2d 451, 457-58 (4th Cir. 1977). But those decisions did not consider whether all facilities that must obtain an NPDES permit are subject to § 316(b).

In promulgating CWA § 316(b), Congress would have understood, as discussed in more detail below, that other statutes and regulations governed consideration of environmental impacts from water diversion structures. For example, Congress would have been well aware that the Federal Power Act (“FPA”) licensing process for hydroelectric facilities requires evaluation of environmental impacts and conditions to protect and mitigate impacts to fish and wildlife-related habitat. Congress gave no indication that it intended such facilities to be subject to additional requirements under CWA § 316(b), nor would such requirements have made sense in light of the other mechanisms in place under the FPA. There is no evidence that Congress intended CWA § 316(b) to apply to hydroelectric facilities, and, indeed, the limited legislative history for that provision indicates that Congress intended § 316(b) to address adverse environmental impacts associated with industrial facilities, such as steam electric generating facilities, for which the statute requires EPA to establish nationally applicable effluent limitations guidelines and new source performance standards. There is no basis in the statute for EPA’s new interpretation that § 316(b) can apply to hydroelectric facilities.

**B. Establishing § 316(b) Requirements for CWISs at Hydroelectric Facilities Would Conflict With and Duplicate Other Federal and State Requirements Already in Place.**

The statutory scheme Congress established under the FPA, and other federal statutes, demonstrates Congress’ intent that the Federal Energy Regulatory Commission (“FERC”) address, through the FERC hydropower licensing process, all issues relating to the use of water by non-federal hydroelectric facilities, including any water quality issues raised by a State CWA § 401 certification.<sup>21</sup>

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<sup>21</sup> This section focuses on hydroelectric projects that require FERC authorization because those are the most common facilities for our members. Certain non-federal hydroelectric facilities, such as small projects (5 MW or less) or projects conducted on an existing conduit (*e.g.*, irrigation canal), do not require FERC licensing because those projects would result in minor environmental effects (*e.g.*, projects that involve little change to water flow and

The comprehensive development standard of FPA § 10(a)(1) requires that licensed hydroelectric projects be best adapted to a comprehensive plan for improving or developing a waterway, including, among other uses, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat). 16 U.S.C. § 803(a)(1). Section 10(a)(1) grants FERC the authority to require the modification of any project and of the plans and specifications of the project works before approval. Thus, to the extent that participating resource agencies, which are actively involved in the licensing process, identify during licensing significant issues relating to impacts from diversion and use of cooling water at hydroelectric facilities, those impacts would be considered by FERC in ensuring that the project will be best adapted to a comprehensive plan.

Section 10(j) of the FPA provides for the full participation of federal and state fish and wildlife agencies in recommending conditions for the protection, mitigation, and enhancement of fish and wildlife resources affected by the development, operation, and management of the hydroelectric project.<sup>22</sup> Such conditions are based on recommendations received pursuant to the Fish and Wildlife Coordination Act from NMFS, the U.S. Fish and Wildlife Service (“FWS”), and state fish and wildlife agencies. As part of the application for a hydroelectric license (or relicense), applicants must submit an environmental report to FERC describing the fish and wildlife that occur within the vicinity of the project and downstream areas affected by the

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use and are unlikely to affect threatened and endangered species), but they are still subject to a similar process and subject to mandatory terms and conditions set by federal and state fish and wildlife agencies and by the Commission. 18 C.F.R. § 4.30. Other federal, non-FERC regulated hydroelectric facilities are generally authorized by Congress and owned by the U.S. Bureau of Reclamation or the U.S. Army Corps of Engineers and in some circumstances must comply with National Environmental Policy Act provisions regarding impacts to aquatic resources associated with operational changes, as well as formally consult with the U.S. Fish and Wildlife Service where federally threatened and endangered species are potentially impacted.

<sup>22</sup> 16 U.S.C. § 803(j)(1).

project, and must identify any federally listed threatened or endangered species.<sup>23</sup> The same report also must describe any measures recommended by consulting fish and wildlife agencies for mitigating such impacts and protecting fish and wildlife.<sup>24</sup>

Additional requirements to evaluate potential impacts to aquatic species exist under the Endangered Species Act (“ESA”) and the National Environmental Policy Act (“NEPA”). Pursuant to ESA § 7 and FERC’s corresponding regulations, FERC has an obligation to ensure that any project it authorizes is not likely to jeopardize the continued existence of any federally listed endangered or threatened species.<sup>25</sup> To satisfy this requirement, FERC directs project sponsors to engage in informal consultation with NMFS and/or FWS to determine whether the project will impact a federally listed species.<sup>26</sup> Unless NMFS or FWS concludes that the proposed hydroelectric facility is not likely to adversely affect federally listed species, the project sponsor must prepare a Biological Assessment containing the results of detailed surveys, potential impacts, and proposed mitigation to eliminate or minimize such impacts.<sup>27</sup> Where the consulting agency concludes that the project will result in the “incidental take”<sup>28</sup> of listed species, NMFS or FWS will prepare a Biological Opinion that may include reasonable and prudent measures to avoid jeopardy and must include a statement specifying the impact (*i.e.*, the amount or extent of incidental take), and reasonable and prudent measures considered necessary or appropriate to minimize the take of listed species.<sup>29</sup> Through this process, FERC will

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<sup>23</sup> 18 C.F.R. §§ 4.51(f), 4.41(f).

<sup>24</sup> *Id.*

<sup>25</sup> 16 U.S.C. § 1536.

<sup>26</sup> 18 C.F.R. § 380.13.

<sup>27</sup> *See* 18 C.F.R. § 380.13(b).

<sup>28</sup> “Incidental take” refers to “takings that result from, but are not the purpose of, carrying out an otherwise lawful activity.” 50 C.F.R. § 402.02.

<sup>29</sup> *See* 16 U.S.C. § 1536(b)(4); *see also* 50 C.F.R. § 402.15(i).

determine, in consultation with federal fish and wildlife agencies, which conservation and mitigation measures should be implemented to minimize impacts. In other words, the ESA process frequently results in the imposition of measures to protect listed species that might be impacted by operations of hydroelectric facilities, including the diversion of cooling water.

NEPA review requires the development by FERC of a Finding of No Significant Impact (“FONSI”), an Environmental Assessment (“EA”), or an Environmental Impact Statement (“EIS”) for a project. Entrainment, impingement, and other impacts on fish and wildlife are analyzed in these environmental documents. For example, within the EA for a hydroelectric project in Arkansas, FERC concluded that “[b]ased upon [Arkansas Game and Fish Commission] observations, current levels of turbine entrainment and mortality of fish is [sic] not considered to be a significant issue at these projects.”<sup>30</sup> Likewise, comprehensive entrainment studies were developed as part of the application process for the Catawba-Wateree and Yadkin-Pee Dee, hydroelectric projects spanning the Carolinas. The EIS for the Catawba-Wateree project found that “entrainment does not appear to adversely affect survival and growth of young of target sport and forage species populations,”<sup>31</sup> and the EIS for the Yadkin-Pee Dee project found that there is “no indication that entrainment is having significant adverse effects on resident fish populations, because project reservoirs and riverine reaches support robust fish populations and an excellent sport fishery.”<sup>32</sup> Similarly, for the Smith Mountain Hydroelectric Plant, a pumped storage facility in Virginia, an entrainment study qualitatively evaluated entrainment for selected species based on reservoir and turbine intake characteristics, water

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<sup>30</sup> FERC, Environmental Assessment for Hydropower License, Project No. 271-062, at 66 (Dec. 2001).

<sup>31</sup> FERC, Final Environmental Impact Statement for Hydropower License, Project No. 2232, at 178 (July 2009).

<sup>32</sup> FERC, Final Environmental Impact Statement for Hydropower License, Project No. 2206, at 138 (Apr. 2008).



velocity and swim speed data, and life history characteristics.<sup>33</sup> FERC concluded in the EIS for the project that the “loss of individual fish from entrainment and mortality is not expected to result in any substantial effects to the fishery at the Project.”<sup>34</sup> The analyses above address entrainment associated with all water passing through the projects, including the enormous amounts of water that go through the turbines for electricity generation. While these studies generally do not focus on entrainment specific to the small pipes and other structures – often within or off of the penstocks – that various hydroelectric facilities use to divert water for service water and cooling purposes, withdrawals and entrainment impacts from these cooling water diversions would be exceptionally smaller. In addition, FERC frequently addresses the issue of fish impingement and entrainment by requiring licensees to screen their intakes to prevent or minimize fish from entering the penstock, which can eliminate or reduce the possibility of impingement or entrainment during the diversion of water from the penstock for cooling purposes.

Furthermore, CWA § 401 provides states broad authority to impose conditions as part of state-issued water quality certificates in the context of the licensing and relicensing of projects. FERC may not issue a license unless the state has either issued or waived the water quality certificate. States have used this authority to impose conditions related to fisheries, aesthetics, recreation, and more.<sup>35</sup> Such conditions are considered “mandatory,” meaning that FERC has no discretion but to include them in a license.

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<sup>33</sup> See FERC, Final Environmental Impact Statement for Hydropower License, Project No. 2210, at 119-126 (Aug. 2009).

<sup>34</sup> *Id.* at 126.

<sup>35</sup> See, e.g., *S.D. Warren Co. v. Maine Bd. of Envtl. Prot.*, 547 U.S. 370 (2006) (holding FERC-licensed dams must comply with state certification that required operator to maintain stream flow and allow passage for certain fish and eels).

In accordance with the authorities described above, fish and wildlife agencies often recommend protection, mitigation, and enhancement measures to offset any known impacts of hydroelectric facilities for aquatic species. In some cases, FERC license conditions may go further than the 2014 Rule would to minimize adverse environmental impacts associated with hydroelectric operations because they can include habitat restoration which, although not allowed as BTA for steam electric and manufacturing facilities captured under the Existing Facilities Rule, serves to provide habitat for individual species, life stages (such as spawning and rearing of young), or entire communities of aquatic organisms affected by hydroelectric operations. Thus, the FERC licensing process already provides for measures to minimize adverse environmental impacts of hydroelectric operations and may, at times, be more stringent than § 316(b) requirements. Any imposition of § 316(b) requirements, either through application of the 2014 Rule or a case-by-case BPJ determination, would be duplicative of existing federal and state requirements already in place. As the Alabama Department of Environmental Management (“ADEM”) has recognized, “[t]he purpose of 316(b) of the [CWA] is to reduce mortality to fish and other aquatic organisms impacted by cooling water intake structures,” but, for hydroelectric facilities, “the impacts to aquatic organisms are already addressed” and “have been extensively studied under the [NEPA] and [FERC] regulatory frameworks and subsequently granted 401 certifications.”<sup>36</sup>

#### **IV. EPA’s 2014 Rule for Existing Facilities Did Not Consider Hydroelectric Facilities.**

Even if CWA § 316(b) were applicable to hydroelectric facilities, which it is not, the Region’s proposed BPJ requirements are arbitrary and capricious because the Region borrowed from and relies on a rule that EPA expressly stated did not apply to hydroelectric facilities and

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<sup>36</sup> See ADEM General Permit Rationale, Hydroelectric Facilities ALG360000, at 3 (Aug. 18, 2015).

that the Agency adopted without any consideration of the technical feasibility or cost of application to hydroelectric facilities.

**A. EPA Has Never Provided Notice or an Opportunity to Comment on the Applicability of § 316(b) Requirements to Hydroelectric Facilities.**

Under the APA, 5 U.S.C. § 553(b)(3), an agency must publish in the *Federal Register* a notice of proposed rulemaking, which “shall include . . . either the terms or substance of the proposed rule or a description of the subjects and issues involved.” After the notice is published, the agency must “give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments.” 5 U.S.C. § 553(c). The APA’s notice-and-comment mandate is “designed (1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and (3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review.” *Int’l Union, United Mine Workers of America v. Mine Safety and Health Admin.*, 407 F.3d 1250, 1259 (D.C. Cir. 2005). These procedures “ensure that the broadest base of information would be provided to the agency by those most interested and perhaps best informed on the subject.” *Phillips Petroleum Co. v. Johnson*, 22 F.3d 616, 620 (5th Cir. 1994).

To ensure regulated entities have fair notice, “the final rule the agency adopts must be a ‘logical outgrowth’ of the rule proposed.” *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 174 (2007). Under this principle, the law asks “whether the affected party ‘should have anticipated’ the agency’s final course in light of the initial notice.” *Covad Commc’ns. Co. v. FCC*, 450 F.3d 528, 548 (D.C. Cir. 2006) (citation omitted). While a final rule need not be an exact replica of the proposed rule, “if the final rule deviates too sharply from the proposal,

affected parties will be deprived of notice and an opportunity to respond to the proposal.” *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547 (D.C. Cir. 1983).

As explained above, prior to the implementation of the 2014 Rule, there had never been any indication from EPA or Congress that CWA § 316(b) could apply to hydroelectric facilities. Moreover, there was no way to anticipate from the proposed Existing Facilities Rule that EPA would apply the technology-based standards to hydroelectric facilities. Hydroelectric facilities had no notice that those facilities could be subject to new NPDES requirements as a result of the 2014 rulemaking, nor were they provided an opportunity to comment on the many ways in which technologies that EPA evaluated for steam electric power and manufacturing plants cannot be considered BTA for hydroelectric facilities. In the preamble to the proposed rule for existing facilities, EPA explicitly stated that withdrawals from hydroelectric facilities were not meant to be addressed by the Existing Facilities Rule:

Given the diversity of industrial processes across the U.S., there are many other industrial uses of water not intended to be addressed by today’s proposed rule . . . Warming water at liquefied natural gas terminals, and *hydro-electric plant withdrawals for electricity generation are not cooling water uses and are not addressed by today’s proposal* . . . .

76 Fed. Reg. at 22,190 (emphasis added).

In light of EPA’s history of *not* applying CWA § 316(b) to hydroelectric facilities and because EPA’s explicit statements confirmed that hydroelectric facilities would not be covered by the Existing Facilities Rule, private and public entities that own or operate hydroelectric facilities did not provide comments to address the potential impacts of the Existing Facilities Rule’s proposed requirements.<sup>37</sup> Applying the Existing Facilities Rule to hydroelectric facilities, therefore, cannot be a logical outgrowth of the proposed rule. Thus, any attempt now by EPA to

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<sup>37</sup> There is no reference to hydroelectric facilities in EPA’s 467-page response to comments document. Response to Comments Document for the Final 316(b) Existing Facilities Rule (May 19, 2014) (EPA-HQ-OW-2008-0667-3679).

apply the Rule's requirements to hydroelectric facilities, which has been done only on rare occasions through post hoc determinations for particular facilities<sup>38</sup> and now in the Proposed Permit, is contrary to the APA's requirements for fair notice and opportunity for comment.

**B. EPA Did Not Consider Technologies for Hydroelectric Facilities or Evaluate the Potential Impacts of Applying the Rule's BTA Standards to Hydroelectric Facilities.**

EPA's final 2014 Rule and preamble provide no discussion of the applicability of § 316(b) or the Rule to hydroelectric facilities. In fact, the administrative record for the 2014 Rule is replete with indications that EPA did not consider impacts to hydroelectric facilities when evaluating potential technologies or the associated costs and benefits. For example, in the Economic Analysis for the final 2014 Rule, EPA stated that "[t]he final rule is only relevant for power generators that use substantial amounts of cooling water, and ...[o]nly prime movers with a *steam-electric generating cycle* use large enough amounts of cooling water to be subject to the final rule."<sup>39</sup> The analysis goes on to describe steam electric facilities as those generating units

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<sup>38</sup> In one of the few instances where EPA has asserted that § 316(b) and the 2014 Rule apply to hydroelectric facilities, it is clear that EPA's determination was made behind the scenes, well after the 2014 Rule was promulgated, and without a notice-and-comment rulemaking that evaluated the potential implications of such a determination. The 2016 NPDES Permit Fact Sheet for the Smith Mountain Hydroelectric Plant in Virginia stated, "Significant discussion was held during this reissuance regarding the applicability of CWA section 316(b). [The applicant's] position is that hydropower stations are not subject to section 316(b). However, after consultation with EPA, a determination was made that the facility is subject to CWA 316(b) and the [Existing Facilities] Rule. The determination was that § 316(b) 'applies' to hydropower facilities if waters of the U.S. are withdrawn and used for cooling purposes." VPDES Permit Program Fact Sheet, Permit No. VA0088765, at ¶ 30 (June 13, 2016). Other states that have considered the issue have determined that § 316(b) does not apply to hydroelectric facilities, *see, e.g.*, ADEM General Permit Rationale, Hydroelectric Facilities ALG360000 (Aug. 18, 2015) (ADEM agrees that the § 316(b) rule is "not applicable" to hydroelectric facilities), or have continued to issue NPDES permits for hydroelectric facilities without § 316(b) requirements, *see, e.g.*, South Carolina Department of Health and Environmental Control, NPDES General Permit for Hydroelectric Generating Facilities, Permit No. SCG360000 (May 15, 2015); North Carolina Department of Environment and Natural Resources, NPDES General Permit No. NCG50000 (Oct. 1, 2015).

<sup>39</sup> Economic Analysis for the Final 316(b) Existing Facilities Rule at 2A-4 (May 2014) (emphasis added) ("2014 Economic Analysis").

that are fueled by “coal, gas, oil, waste, nuclear, geothermal, and solar steam.”<sup>40</sup> EPA does not include hydroelectric facilities in its analysis of the economic impact of the Rule on electric generation units, nor does EPA analyze the economic impact of the rule on hydroelectric facilities, in particular.<sup>41</sup> Likewise, in the Technical Development Document for the 2014 Rule, EPA includes the following exhibit that provides the estimated number of facilities that would be subject to the 2014 Rule by fuel type and prime mover category, but the table does not include hydroelectric facilities:

**Exhibit 4-26. 316(b) electric power facilities by plant type and prime mover**

Plant type <sup>a</sup>	Prime mover	Number of 316(b) electric generators <sup>b,c</sup>
Coal steam	Steam turbine	342
Gas	Steam turbine	73
Nuclear	Steam turbine	56
Oil	Steam turbine	29
Other steam	Steam turbine	25
Total steam	Steam turbine	525
Combined cycle	Combined cycle	33
Total		559

<sup>a</sup> Facilities are listed as steam electric if they have at least one steam electric generating unit.

<sup>b</sup> Facility counts are weighted estimates generated using the original 316(b) survey weights.

<sup>c</sup> Individual values do not sum to reported total due to rounding as the result the application of statistical weights.

Sources: U.S. EPA, 2000; U.S. DOE, 2007 (*GenY07*); U.S. EPA Analysis, 2010

2014 TDD Exhibit 4-26.

Similarly, EPA’s benefit analyses did not consider hydroelectric facilities. To evaluate the benefits of the 2014 Rule’s requirements, EPA extrapolated data from 98 model facilities based on information EPA received in the 2000 ICR.<sup>42</sup> In its 2000 ICR, however, EPA did not request information from any hydroelectric facilities. EPA ultimately narrowed its research

<sup>40</sup> *Id.*; see also Technical Development Document for Final Section 316(b) Existing Facilities Rule at 4-23 (May 19, 2014) (“2014 TDD”) (“Only prime movers with a steam-electric generating cycle use large enough amounts of cooling water to fall under the scope of the proposed rule.”).

<sup>41</sup> In fact, the only discussion of hydroelectric facilities in EPA’s Economic Analysis is a general description of hydroelectric facilities’ contribution to electricity generation. See 2014 Economic Analysis at 2A-3.

<sup>42</sup> See Benefits Analysis for the Final Section 316(b) Existing Facilities Rule at 3-5 (May 2014).

activities to focus on traditional utilities, nonutility power producers, and four other industrial categories that utilize large quantities of cooling water. “Traditional utilities and nonutility power producers that use cooling water were further limited to those plants that generate electricity by means of steam as the thermodynamic medium (steam electric) because they are associated with large cooling water needs.”<sup>43</sup> Therefore, hydroelectric facilities, which do not generate electricity through the use of steam, were excluded from EPA’s original data request, which was later used to support EPA’s analysis of the Existing Facility Rule’s benefits.

In fact, EPA concluded that “[u]nits with water turbines, or ‘hydroelectric units,’ ... do not use a steam loop and do not use cooling water ....”<sup>44</sup> As Region 10 now appears to understand, hydroelectric facilities occasionally do use cooling water, although they do so in small amounts, and their use of cooling water certainly was not the focus of the 2014 Rule.

If EPA had actually considered the technical feasibility and cost for application requirements and any technology and associated monitoring requirements for hydroelectric facilities, it would have understood that what is BTA for steam electric power and manufacturing plants is not necessarily BTA for hydroelectric facilities. EPA previously has recognized that a different BTA may be appropriate for other types of facilities with CWISs. For example, EPA determined that, for existing offshore oil and gas platforms, no retrofit technology was BTA. EPA studied the facilities and “could not identify any technologies (beyond the protective screens already in use) that are technically feasible for reducing impingement or entrainment in such existing facilities.” 79 Fed. Reg. at 48,310. As discussed in more detail in Section IV.B below, there are similar challenges for hydroelectric facilities.

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<sup>43</sup> Information Collection Request, Detailed Industry Questionnaires: Phase II Cooling Water Intake Structures & Watershed Case Study Short Questionnaire at 4 (Aug. 18, 1999).

<sup>44</sup> 2014 TDD at 4-22.

EPA cannot impose § 316(b) requirements on hydroelectric facilities without engaging in proper notice-and-comment rulemaking that evaluates the availability and feasibility of potential technologies for hydroelectric facilities. Region 10's Proposed Permit and Fact Sheet do not fulfill this requirement. Accordingly, it is unlawful for Region 10 to impose on hydroelectric facilities CWA § 316(b) requirements – whether they are based on BPJ determinations or the 2014 Rule – without following the necessary procedures or conducting this type of evaluation.

**V. Even if § 316(b) Did Apply to Hydroelectric Facilities, Which it Does Not, the Requirements of the 2014 Rule Are Not Appropriate for Such Facilities, Which Are Fundamentally Different From Facilities Covered by the Rule.**

The requirements that EPA established in the 2014 Rule are not appropriate for hydroelectric facilities, which are fundamentally different from the steam electric power and manufacturing plants EPA considered in that rulemaking.

As discussed above, EPA did not consider hydroelectric facilities in establishing BTA in its 2014 Rule. EPA explained in the preamble to the 2014 Rule that, to establish BTA for the facilities covered by the Rule, EPA considered: “the availability and feasibility of various technologies,” “costs associated with these technologies,” the technologies’ economic impacts, “effectiveness of these technologies in reducing impingement mortality and entrainment,” and additional factors, such as “location, age, size, and type of facility.” 79 Fed. Reg. at 48,328. For this analysis, EPA made a number of assumptions based on data and information from steam electric power plants and manufacturing plants that do not take into account technology costs or feasibility for hydroelectric facilities.<sup>45</sup>

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<sup>45</sup> For example, in evaluating impingement data and performance standards, EPA relied on 26 impingement mortality data sets at 17 facilities, none of which included hydroelectric facilities. 79 Fed. Reg. at 48,323; 2014 TDD Exhibit 11-3. As another example, in the final rule, EPA adjusted its assumptions for costs of modified traveling screens with fish returns in response to feedback that its proposal had underestimated those costs. 79 Fed. Reg. at 48,324. The adjustments EPA made in its evaluation of technology costs included: to correct its misplaced assumption that modified traveling screens were available at most facilities, EPA assigned higher cost technologies (e.g., larger intakes, wedgewire screens with through-screen design velocities of 0.5 fps) for intakes that use passive



The assumptions that EPA made for the facilities it considered in its 2014 Rule do not necessarily apply for hydroelectric facilities. There are numerous different configurations for hydroelectric facilities and, in particular, their pipes and structures that divert cooling water. Nearly every facility has unique, location-specific design attributes to take maximum advantage of the hydraulics of that unique physical location. For example, some hydroelectric facilities have a hole bored through the penstock in which a perforated flange is used to attach a small pipe used to gravity feed service and cooling water equipment. Some hydroelectric facilities have pipes that come off the scroll case. Others have separate pipes that come off the face of the dam. For these three configurations, water that is gravity- or pressure-induced feeds through the pipe to cool and service the equipment. Other facilities have separate intake pump houses upstream of the powerhouse. For those facilities, there is a distinct and separate intake used for service water and cooling purposes. Pumped storage facilities pump water from lower reservoirs to higher elevation reservoirs during times of low electric demand and then release water from the upper reservoir to drive turbines during periods of high electric demand. In one pumped storage facility, cooling water is drawn from the cavity between the inner and outer walls of the power house, while service water is drawn from a single intake at the tailrace of the plant.

Given the wide range of configurations for hydroelectric facilities and different processes for diverting water for cooling, the technologies that EPA found to be the best available technologies and sampling requirements for steam electric power plants and manufacturing plants are not necessarily appropriate or practical for hydroelectric facilities.

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screens; EPA increased capital costs for the fish return component and included additional costs for those with particularly difficult circumstances, such as very long intake canals and submerged offshore intakes. *Id.*; 2014 TDD at 8-2 to 8-6 (explaining EPA's model facility approach and modifications to the cost tool). EPA did not consider application of the technology to hydropower facilities.

For example, at many hydroelectric facilities, conducting impingement or entrainment sampling at the pipe or structure taking in cooling water would be very difficult, or even unsafe, due to turbulence. Sampling equipment may not be able to withstand water flows and forces and could break away, potentially damaging the facility.

In addition, many of the impingement technology options that are established as BTA in the 2014 Rule would not be feasible at most hydroelectric facilities. For example, one of the impingement options is to use a maximum 0.5 feet per second through-screen design velocity, 40 C.F.R. § 125.94(c)(2), but for many hydroelectric facilities, the only way to retrofit an intake pipe within the penstock to meet that through-screen design velocity would be to increase the size of the intake opening, which in some cases would require dam reconstruction and could actually increase entrainment because of the increase in the volume of water passing through the intake. Similarly, another impingement option is to operate an intake structure with a maximum through-screen velocity of 0.5 feet per second, § 125.94(c)(3), but it would be impossible to measure the actual velocity at the intake for most hydroelectric facilities because the magnitude and force of the water is so great as it is going through the penstock that no monitoring equipment could be located near the intake. Nor would it be feasible to install modified traveling screens, § 125.94(c)(5), on the small pipes that are used by many hydroelectric facilities to take in cooling water. At least three of the impingement options, §§ 125.94(c)(5)-(7), require an impingement technology performance optimization study, which would be very difficult, if not impossible, for many hydroelectric facilities that would not be able to conduct impingement sampling at the intake.

Indeed, the 2014 Rule's requirements would not be necessary in most cases because the rates of impingement and entrainment would be so low that additional controls would not be

warranted. Some hydroelectric facilities have in place screens to prevent debris of a certain size from entering the penstock (and therefore the cooling water pipe), and at many facilities, the water passes through a strainer before being used for cooling purposes. Some of these strainers are backwashed to a plant sump. In our members' experience, fish are rarely (if ever) observed in strainer baskets or in backwash to the plant sump. Moreover, for many hydroelectric facilities, due to the high velocity and volume of water passing through the penstock and by the entrance to the intake, the rates of impingement would be so low that additional impingement controls would be useless. The same is true for entrainment at many of these facilities. For hydroelectric facilities, the *de minimis* exception for impingement established in the 2014 Rule, 40 C.F.R. § 125.94(c)(11), would be applicable more often than not. And the fact that there is not a *de minimis* exception for entrainment in the 2014 Rule would create issues for many hydroelectric facilities that would have no way of further minimizing the already very minor rates of entrainment.

EPA clearly did not consider hydroelectric facilities when it was establishing the requirements under the 2014 Rule. As explained above, such requirements are not appropriate or feasible for hydroelectric facilities, which are fundamentally different from facilities covered by the 2014 Rule.

**VI. The § 316(b) Measures Required in the Proposed General Permit Are Inappropriate for Hydroelectric Facilities.**

Even if § 316(b) applied to hydroelectric facilities, which it does not, the measures that Region 10 proposes as BTA in the Proposed Permit are inappropriate for the hydroelectric facilities to which the Proposed Permit, if finalized, would apply. As Region 10 acknowledges,

each generating facility is unique in its location, physical layout, and operational pattern.<sup>46</sup> The documentation Region 10 has supplied provides no information on the specific attributes of the “intake structures” used to supply cooling water used by the hydroelectric facilities to which any final permit would apply. Indeed, the Fact Sheet reflects no attempt to characterize or consider the wide range of variation among existing cooling water intakes at hydroelectric facilities. That variation is important because site-specific factors may make it difficult or impossible for many facilities to comply with some or all of the proposed requirements.

The Region also made no effort to assess whether those intakes, as currently configured and operated, are causing any meaningful environmental impacts not already minimized in the licensing and NEPA review process. It is difficult to understand how Region 10 could have exercised its BPJ that the intake of cooling water at hydroelectric facilities requires further control without first collecting at least some information from which to evaluate whether the diversion of relatively small amounts of water that otherwise would flow through the facility were likely to cause any meaningful incremental environmental impacts. Even if it were appropriate to apply § 316(b) to these facilities (which NHA and UWAG believe it is not), the exercise of BPJ for existing facilities requires at least some understanding of the location, design, construction, and capacity of the “intake structures” involved and the environmental impacts occurring. Region 10 put the cart before the horse, imposing new “BTA” requirements without first evaluating the attributes of the facilities in question and determining whether or not they already have minimized adverse environmental impacts.

Region 10 also failed to identify the technologies, measures, procedures, and methods that it anticipates facilities would use to meet the requirements imposed by the permit. Nor did

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<sup>46</sup> EPA Region 10, Biological Evaluation of the NPDES General Permit for Hydroelectric Facilities Within the State of Idaho, Permit Number IDG360000, at 8 (Feb. 2018).

Region 10 consider how the BTA requirements it seeks to impose may overlap or conflict with FERC license conditions. As discussed below, many of the proposed requirements dictate an outcome (like returning fish to the waterbody or managing tailrace operations to prevent fish access to draft tube areas) without any discussion of what technology or other measures the Region expects the facility to use to accomplish that outcome. The record is equally devoid of any assessment of the feasibility and costs of using whatever technologies, procedures, or methods might be needed to satisfy those requirements, or the level of performance or environmental benefits likely to be achieved. Indeed, some of the measures Region 10 has proposed could be read to apply to hydroelectric facilities as a whole, including parts of the facility (e.g. tailrace) that are not part of the process for diverting cooling water.

The availability and cost of specific technologies and measures, the impact of those costs on affected facilities, and the environmental benefits of requirements based on those technologies are all important factors that EPA acknowledged it needed to consider before establishing its nationally applicable § 316(b) regulations for facilities withdrawing cooling water above the applicable thresholds. EPA also considered feasibility, cost, and benefits in establishing permit application requirements, including those dealing with biological monitoring and other data collection and analysis, reporting, and recordkeeping. Based on its consideration of those factors, EPA was unable to justify imposing any specific BTA technology requirements on facilities below the applicable flow threshold or any uniform application requirements for entrainment for facilities with “actual intake flows”<sup>47</sup> at or below 125 MGD. Yet Region 10

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<sup>47</sup> Actual Intake Flow (“AIF”) “means the average volume of water withdrawn on an annual basis by the cooling water intake structures over the past three years. After October 14, 2019, Actual Intake Flow means the average volume of water withdrawn on an annual basis by the cooling water intake structures over the previous five years. Actual intake flow is measured at a location within the cooling water intake structure that the Director deems appropriate. The calculation of actual intake flow includes days of zero flow. AIF does not include flows associated with emergency and fire suppression capacity.” 40 C.F.R. § 125.92(a).

proposes to impose a host of new § 316(b) requirements without identifying the technologies on which they are based, determining that they are in fact available for the facilities in question, and evaluating their costs and benefits. In particular, the Region failed to consider the important social costs (*e.g.* energy reliability, renewable electricity generation) of imposing new requirements.

In fact, it would be very difficult for many hydroelectric facilities to comply with the requirements outlined in the Proposed Permit. In some cases (*e.g.*, weekly monitoring, returning impinged fish to source water), the requirements Region 10 has proposed are far more onerous than those EPA concluded should apply only to facilities with design flows greater than 2 MGD and actual intake flows greater than 125 MGD. Moreover, even if some facilities could meet some of those requirements, the costs likely would far exceed any plausible environmental benefits.

UWAG and NHA provide the following specific comments on the Proposed Permit's BTA requirements:

- The 2014 Rule establishes requirements for existing facilities that: (1) have NPDES permits, (2) use one or more CWISs with a cumulative DIF of greater than 2 MGD to withdraw water from waters of the U.S., **and** (3) use 25 percent or more of the water withdrawn (on an actual intake flow basis) exclusively for cooling water purposes. 40 C.F.R. § 125.91(a). Facilities with CWISs that are subject to CWA § 316(b) that do not meet these criteria must meet § 316(b) requirements established by the permit writer on a case-by-case, BPJ basis. *Id.* § 125.90(b). The Fact Sheet and Section 401 Water Quality Certification state that the Proposed Permit would cover facilities that fall below the threshold of “2 MGD or less **and** less than twenty-five percent used exclusively for cooling . . . .” Proposed Permit Fact Sheet at 28 (emphasis added); *see also* Section 401 Water Quality Certification at 1. The Proposed Permit, however, states that facilities are ineligible for coverage and must apply for an individual NPDES permit if the facility “uses or proposes to use one or more [CWISs] with a [DIF] of greater than 2 [MGD] **or** the facility uses 25 percent or more of the water it withdraws for cooling water purposes on an average monthly basis.” Proposed Permit at 8 (emphasis added). Although, as explained throughout these comments, NHA and UWAG do not believe CWA § 316(b) or the 2014 Rule are applicable to hydroelectric facilities even on a case-by-case BPJ basis, if Region 10 plans to rely on the 2014 Rule, it must be consistent throughout the

Proposed Permit and supporting documents, and clarify that facilities that are ineligible for coverage under the Proposed Permit are those facilities that use greater than 2 MGD and use 25 percent or more of the water for cooling purposes.

- 2(a): The Proposed Permit would require permittees to “manage the intake operations to minimize injury to resident fish and other aquatic species in the river,” but the Region provides no analysis of the range of existing hydroelectric cooling water intake operations and how their operations could be managed to minimize injury to resident fish and other aquatic species.
- 2(b): The Proposed Permit would require facilities to “manage tailrace operations to prevent fish access to the draft tube areas to minimize injury of fish and other aquatic species.” The tailrace and draft tube, however, are not subject to EPA’s NPDES permitting authority. Moreover, the cooling water piping may not exist in the draft tube, but rather at the downstream face of the power plant, making managing the tailrace operations at the draft tube ineffective for protecting fish. Because of the geometry and physics of this system, the potential for fish impingement and entrainment is very low, and monitoring for fish is nearly impossible. To the extent that fish access to the tailrace and associated injury from contact with turbine runners constituted a significant resource issue, the existing FERC licensing process would be adequate to fully address the impacts in consultation with fish and wildlife agencies.
- 2(c): The Proposed Permit would require permittees to “cease or reduce the intake of cooling water whenever withdrawal of source water is not necessary,” but the Region provides no analysis of, or evidence for, the feasibility or efficacy of ceasing or reducing the intake of cooling water at these hydroelectric facilities.
- 2(d): The Proposed Permit would require permittees to “return all observed live impinged fish to the source water to the extent practicable.” The Region provides no analysis that impingement occurs, or can even be discerned, at all types of cooling water intakes or that screening fish and returning fish to the source water is technically feasible.
- 2(e): The Proposed Permit directs permittees not to spray impinged fish or invertebrates with chlorinated water. EPA provides no analysis of, or evidence for, the feasibility or efficacy of restricting the use of chlorinated water at hydroelectric cooling water intakes for minimizing adverse effects of impingement and entrainment.
- 2(f): The Proposed Permit would require permittees to “design an impingement and entrainment monitoring program,” and the monitoring is to be conducted “at least weekly.” However, as explained above, conducting impingement or entrainment sampling at the pipe or structure taking in cooling water would be very difficult, and even unsafe. Moreover, in the FERC licensing process, study and monitoring needs are determined in consultation with federal and state fish and wildlife agencies. The FERC process is robust and sufficient for determining whether monitoring may be justified and is technically feasible for evaluating fish impingement and entrainment at the cooling water intake.

- 2(g): The permittee is directed to retain the results of this monitoring program on site “for inspection and for submission to EPA as required in Part 4(l) of this Section,” but the reference to 4(l) is confusing, given this section (*i.e.*, IV.C) contains no Part 4(l).
- 2(h): The Proposed Permit would require permittees to maintain physical screening or exclusion technology consistent with the guidelines of NMFS Northwest Region’s Anadromous Salmonid Passage Facility Design. These guidelines, however, are designed based on physical screening and exclusion technology for the hydroelectric turbines and the bypass operations and are not likely to be feasible at many of the cooling water intakes. Region 10 could not require such technologies for the turbines themselves, which are outside the scope of EPA’s NPDES authority.
- 2(i): The Proposed Permit would require the permittee to “operate and maintain the CWIS including any existing technologies used to minimize impingement and entrainment,” but it is not clear what technologies could be used at hydroelectric facilities to minimize impingement and entrainment. The Region provides no analysis or explanation.

The information report required under the Proposed Permit’s section IV.C.3 has requirements that are excessive and, in some instances, inconsistent with the section IV.C.2 BTA requirements. UWAG and NHA provide the following specific comments on the Proposed Permit’s CWIS report requirement:

- 3(d): Reporting requirement 3(d) refers to measures to be taken to maintain a daily maximum surface withdrawal of 1.0 MGD, but such measures are not listed among the BTA requirements.
- 3(e): EPA requests maximum monthly average intake data during the previous five years, but these data may not be collected at hydroelectric cooling water intakes because the intake volume is so small.
- 3(f): Reporting requirement 3(f) refers to whether the facility withdraws cooling water at a rate commensurate with a closed-cycle cooling system without any analysis or explanation as to how this might be relevant to the operation of small cooling water intakes at hydroelectric facilities.
- 3(o): Reporting requirement 3(o) for a report of the five-year results from the impingement and monitoring program called for in Part 2(f) is not supported by any analysis of the need for, technical feasibility, or costs of conducting such a monitoring program. Again, monitoring would not be technically feasible at many facilities, and EPA has not identified how the monitoring information would be applied to future BTA determinations.



## VII. EPA Should Clarify Certain Other Requirements in the Proposed General Permit.

In addition to the § 316(b)-related measures addressed above, there are a number of discharge-related provisions in the Proposed Permit that require clarification and/or revision, including the following:

- Eligibility for Permit Coverage: On page 8, the Proposed Permit states that a facility is ineligible for coverage if “[t]he facility is new or has expanded since July 1, 2011.” The Fact Sheet states, however, that facilities are not covered by the Proposed Permit if they “are new or have expanded *their discharge* since July 1, 2011.” Fact Sheet at 19 (emphasis added). EPA should clarify whether a facility is excluded if it has expanded since July 1, 2011, or whether it is excluded only if the discharge has expanded since July 1, 2011. Similarly, the Proposed Permit states that a facility would be ineligible when “[a] Water Quality Management Plan or Total Maximum Daily Load (TMDL) containing requirements applicable to such a point source is approved,” Proposed Permit at 8, but the Fact Sheet states that this applies to facilities “with wasteload allocations from a TMDL for pH, oil, and grease and/or temperature” would be ineligible. Fact Sheet at 19. EPA should clarify whether a facility is ineligible if it has a wasteload allocation as a result of a TMDL for some, but not all of the discharges, or whether a facility could be eligible for only those discharges that do not already have an approved wasteload allocation.
- Existing Measures to Prevent Release of Oil and Grease: In accordance with their FERC license and related requirements, most hydropower producing facilities in the state of Idaho are currently required to maintain procedures in place pursuant to a Spill Prevention Control and Countermeasure (SPCC) and Emergency Action Plan (EAP). Each of these plans is in place in order to protect against any accidental release of oil and grease into a water of the United States. It is unclear, therefore, what additional benefit would derive from the Proposed Permit’s Best Management Practices (BMP) Plan requirement.
- BMP Plan Notification: Under the Proposed Permit’s “Schedule of Submissions,” the permittee must provide EPA with written notification that the BMP Plan has been implemented within 180 days after the effective date of the permit. Proposed Permit at 2. This schedule also indicates that the permittee must notify EPA that the BMP Plan has been implemented within 90 days after authorization to discharge under the General Permit. *Id.* Can EPA guarantee that the permittee will have authorization to discharge within 90 days of the effective date of the permit to allow the permittee to satisfy these obligations on time? Moreover, the 180-day period specified on page 2 of the Proposed Permit is inconsistent with the requirement on page 20 that the permittee submit written notice to EPA and IDEQ that the BMP Plan has been developed and implemented within 90 days of the effective date of the permit. EPA should correct page 20 to use the 180-day period previously specified.
- BTA Notification: Likewise, pursuant to section IV.C.2, facilities withdrawing cooling water must implement BTA within 180 days of the effective date of the permit. Proposed

Permit at 20. Can EPA guarantee that the permittee will have authorization to discharge within enough time to implement BTA within 180 days of the permit's effective date?

- BMP Plan Shield: Part IV.B.5 of the proposed permit would require the permittee to implement BMPs or other measures that “ensure” compliance with a host of vaguely or inconsistently stated objectives. For example, Section IV.B.5(a) would require BMPs to “ensure” that oil, grease, and hydraulic fluids from “all sources” “do not enter the river,” apparently in any amount, and regardless whether this would be feasible or necessary to meet water quality standards. Proposed Permit at 21. Yet, section IV.B.5(c) would require only BMPs that “*minimize* the leaking of hydraulic oil or other oils.” *Id.* (emphasis added.) As another example, section IV.B.5(d) would require the permittee to “reduce” its reliance on lubricants that come into contact with river water, and sections IV.B.5(e) and IV.B.5(j) would require a “preference” for “environmentally acceptable lubricants” and PCB-free lubricants, paint, and caulk, but no criteria are specified in the permit for evaluating what reductions are required or for exercising these preferences. *Id.* at 21-22. Requirements such as these leave permittees unfairly exposed to agency enforcement actions and citizen suits even when the permittees have complied with them in good faith. To prevent this, the requirements should be stated more clearly and objectively, and the permit should include a provision that a permittee's compliance with the BMPs specified in its required BMP Plan constitutes compliance with section IV.B of the permit. Such a “plan shield” would be consistent with NPDES permit requirements because section IV.B.3(c) authorizes EPA to require changes in the BMP Plan “at any time” if EPA determines that the BMP Plan does not meet the minimum requirements of section IV. But allowing a permittee to rely on the BMPs in its BMP Plan unless and until EPA directs changes in those BMPs would prevent the permittee from being unfairly subject to an enforcement action based on second-guessing the adequacy of the BMPs that it has selected in good faith to comply with the permit's vaguely worded BMP requirements.
- NOI Requirements for Facilities Discharging to § 303(d) Listed Waters: According to the Proposed Permit, facilities that would like coverage under the general permit must submit their initial application or Notice of Intent (“NOI”) within 90 days after the effective date of the permit. Proposed Permit at 2. On page 12, item 15, however, applicants discharging to waters listed on IDEQ's most recent CWA § 303(d) list for temperature must submit one complete season (May 1 through November 1) of continuous temperature monitoring data with a copy of their NOI. Facilities that discharge to § 303(d) listed waters for temperature will likely not be able to submit an NOI with one complete season of continuous temperature monitoring data within 90 days after the effective date of the permit. It would make more sense for facilities to begin this sampling once the permit becomes effective. EPA should clarify that such facilities can submit this sampling information after the sampling period has concluded or when the permit is renewed. If this requirement is not adjusted, several facilities in Idaho that would otherwise qualify for coverage under the Proposed Permit would not be eligible. In addition, there is a lack of detail in the Proposed Permit and the Section 401 Water Quality Certification regarding where the monitoring should occur and the sampling intervals. EPA should provide more information on these requirements.

- Effluent Limits Apply Only to Pollutants Added by the Facility: Sections III.A.1-6 of the Proposed Permit would prohibit the “discharge” of various materials that would impair beneficial uses or cause other adverse effects in the receiving water. Proposed Permit at 14. In addition, sections III.A.8-12, Tables 1-5, set forth numeric limits that would apply to the facility’s “effluent.” *Id.* at 14-17. Consistent with EPA’s longstanding position, the Proposed Permit should be revised to clarify that these prohibitions apply only to pollutants that are *added* to receiving waters by the facility, and not to pollutants that are *passed through* the facility from upstream waters, including pollutants contained in facility reservoirs.
- Sampling Frequency: The Proposed Permit delineates four types of discharges that must be sampled, some on a monthly basis. Proposed Permit at 15-17. Monthly sampling is not needed, and there are limited benefits, if any, associated with the extensive sampling scheme proposed. Indeed, the 2009 Region 1 general permit for hydroelectric facilities requires less frequent sampling for similar discharges. For example, whereas the Proposed Permit requires sampling for flow, pH, and oil and grease for cooling water once per month, the Region 1 permit requires sampling once per quarter.<sup>48</sup>

EPA Region 1 initially proposed monthly sampling, but UWAG and NHA noted in their 2004 joint comments<sup>49</sup> on the Region 1 proposal that monthly sampling is not needed and that there are limited benefits, if any, associated with the extensive sampling scheme Region 1 proposed. UWAG and NHA explained that many of the activities proposed to be regulated under the general permit are periodic in nature and may occur only once or twice a year and, therefore, monthly monitoring would be wasteful. *Id.* at 9. We also noted that obtaining monthly samples could present a substantial logistical challenge to owners and operators due to extreme weather conditions, sample holding time, and lab accessibility. Data that NHA and UWAG member organizations acquired during the FERC licensing process show that the sample results would be well below the discharge limitations that were proposed by Region 1. Region 1 recognized these concerns and, in the final 2009 Region 1 permit, EPA reduced the sampling frequency. In its Response to Comments on the Region 1 permit, EPA stated that it “determined a less frequent monitoring frequency will still provide adequate pollutant monitoring data....”<sup>50</sup>

Region 10 has provided no principled basis for requiring sampling more frequently than Region 1 determined was sufficient in the 2009 Region 1 general permit. We recommend that Region 10 reduce the sampling frequencies to, at the very least, align with the sampling frequencies that Region 1 determined to be reasonable in the 2009 Region 1 general permit.

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<sup>48</sup> See EPA Region 1 General Permits Under the NPDES for Hydroelectric Generating Facilities, Permit Nos. MAG360000 and NHG360000, at 3-4, 6 (Nov. 10, 2009) (“Region 1 Permit”).

<sup>49</sup> Joint Comments of NHA and UWAG on the Draft NPDES General Permits MAG360000 and NHG360000 for Hydroelectric Generating Facilities, at 9-10 (Jan. 16, 2004).

<sup>50</sup> EPA Region 1 General Permit Response to Comments NPDES General Permit Nos. MAG360000 and NHG360000, at 42. (“Region 1 Response to Comments”).

- Flood/High Water Discharges: The Proposed Permit would impose effluent limitations and monitoring for maintenance-related water during flood/high water events and for equipment-related backwash strainer water. Proposed Permit at 16. In the Region 1 permit, however, EPA recognized that “sampling discharges from emergency flood devices can be dangerous and impracticable,” and determined that the monitoring and reporting requirements it had proposed for the flood water discharges were “inappropriate.” See Region 1 Response to Comments at 19. As a result, the Region 1 permit required only limited monitoring and reporting for facility maintenance-related water during flood/high water events and did not require monitoring for equipment-related backwash strainer water. Region 1 Permit at 6. Region 10 should make similar adjustments to the Proposed Permit.
- Monitoring Adjustment Opportunity: The Region 1 Permit allows for the permittee to request a reduction in the monitoring frequency of any pollutant after 10 valid pollutant samples for the outfall indicate compliance with the pertinent permit limits or demonstrate no reasonable potential to cause or contribute to water quality standards violation. Region 1 Permit at 23. We recommend that EPA revise the Proposed Permit to include the same adjustment opportunity.
- BMP Incident: Under section IV.B.6, facilities must prepare a written report to EPA and IDEQ within seven days after a “BMP incident” has been addressed. However, this term is not defined in the permit. Proposed Permit at 22. EPA should define “BMP incident.”
- Toxic Substances v. Toxic Pollutants: Pursuant to section III.A.2, the permittee must not discharge “toxic substances” in concentrations that impair the designated beneficial uses of the receiving water. Proposed Permit at 14. Also, section V.I addresses “Changes in Discharge of Toxic Substances.” *Id.* at 29. EPA should clarify whether “toxic substances” are equivalent to “toxic pollutants” as defined in 40 C.F.R. § 122.2.
- “Deleterious Materials”: Similarly, section III.A.3, Proposed Permit at 14, and section V.G.5, *id.* at 29, refer to “deleterious materials,” but these materials are not defined. These terms should also be defined.
- Total Suspended Solids (TSS) Levels: The Proposed Permit requires a monitoring method that will achieve a maximum Minimum Level for TSS of 5 mg/L. But there is no monitoring requirement for TSS, and EPA acknowledges that TSS is naturally occurring. Proposed Permit at 17, 45. EPA must explain the basis for such a requirement. In the Region 1 general permit for hydroelectric facilities, for example, this issue was resolved by removing the requirement to monitor TSS.
- “Maximum Minimum Level”: The table in Appendix A lists the “maximum Minimum Level (ML)” for pollutants in the permit. Proposed Permit at 45. EPA must clarify how facilities should apply this standard.
- “Significant”: Appendix C uses the term “significant” in multiple places to describe what must be included in the BMP Plan, but the term “significant” is not defined in the

Proposed Permit. EPA should clarify the factors that will be used to determine when a spill, event, or some other occurrence is “significant.”

## **VIII. Conclusion**

In sum, EPA Region 10 should not apply CWA § 316(b) to hydropower facilities. Section 316(b) was intended by Congress to address CWIS at steam electric and similar facilities, not hydropower projects. Furthermore, EPA CWIS regulations do not call for application of § 316(b) to hydropower facilities, and those regulations were not developed with any consideration of doing so, making it highly inappropriate for Region 10 to seek to impose the regulations or elements of them on the facilities. As noted above, the FPA and CWA § 401 fully protect both water quality and fish and wildlife in the context of hydropower facilities. Therefore, Region 10 should remove any § 316(b)-related provisions from the Proposed Permit.

UWAG and NHA appreciate the opportunity to comment on the Proposed Permit and provide factual information regarding operation of our members’ hydroelectric facilities. No commenter, however, can make up for the lack of a comprehensive administrative record in the first instance that provides the Agency’s evaluation of the availability and feasibility of potential technologies for hydroelectric facilities. We hope that EPA will pursue our recommendations and we look forward to working with you to address these meaningful issues.